

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-46. (Cancelled)

47. (New) A telecommunication system comprising:

a plurality of connection control nodes, each connection control node further comprising broadband switching fabric;

a broadband network connected to said plurality of connection control nodes, said broadband network further comprising a plurality of paths, each of said plurality of paths establishing a communication link between certain two of said plurality of connection control nodes; and

at least one call control node, further comprising:

narrowband switching fabric;

switching intelligence for providing call control for said narrowband switching fabric and said plurality of connection control nodes;

a data structure containing bandwidth data identifying an amount of available bandwidth on at least one of a plurality of paths; and

means for selecting at least one of said paths for switching an incoming call through a broadband network interconnecting said plurality of connection control nodes using said bandwidth data and over said broadband switching fabric.

48. (New) The telecommunications system of Claim 47, wherein said at least one call control node is a Media Gateway Controller and said plurality of connection control nodes are Media Gateways.

49. (New) The telecommunications system of Claim 47, wherein said data structure further comprises statistical information related to said bandwidth data on each of said paths.

50. (New) The telecommunications system of Claim 49, further comprising:
means for performing a calculation of said statistical information related to said bandwidth data on each of said paths, said calculation being performed continuously or periodically; and
means for storing said statistical information in said data structure.

51. (New) The telecommunications system of Claim 47, further comprising:
means for allocating bandwidth on said at least one selected path for said incoming call; and
means for updating said bandwidth data within said data structure for said at least one selected path based on said bandwidth allocated for said incoming call.

52. (New) The telecommunications system of Claim 47, wherein said means for selecting further comprises:
means for receiving a maximum bandwidth amount for said incoming call;

means for determining a list of routes from said plurality of paths for said incoming call, each of said routes including at least one of said paths; and

means for selecting an optimum route from said list of routes based on said maximum bandwidth amount and said bandwidth data for each of said paths associated with each of said routes on said list of routes, said amount of available bandwidth on each of said paths associated with said optimum route being greater than said maximum bandwidth amount for said call.

53. (New) The telecommunications system of Claim 47, wherein said data structure further includes quality data related to the quality of packet transmissions on at least one of said plurality of paths within said broadband network.

54. (New) The telecommunications system of Claim 53, wherein each of said connection control nodes has a jitter buffer therein for buffering packets received through said broadband network, said quality data being based on measurements related to said jitter buffer.

55. (New) The telecommunications system of Claim 53, wherein said quality data includes an indication of the number of bad quality calls along each of said plurality of paths, said measurements being used to determine whether a particular call is a bad quality call.

56. (New) The telecommunications system of Claim 53, wherein said means for selecting further comprises:

means for determining a list of routes from said plurality of paths for said incoming call, each of said routes including at least one of said paths; and

means for selecting an optimum route from said list of routes based on said quality data and said bandwidth data for each of said paths associated with each of said routes on said list of routes.

57. (New) A telecommunications system for monitoring bandwidth allocation in a broadband network, comprising

a plurality of connection control nodes having broadband switching fabric;

at least one call control node having switching intelligence and narrowband switching fabric, said plurality of connection control nodes being controlled by said at least one call control node; and

a plurality of paths for interconnecting said plurality of connection control nodes;

wherein said at least one call control node further comprises:

means for determining quality data related to the quality of packet transmissions on at least one of said plurality of paths within said broadband network;

means for determining bandwidth data identifying an amount of available bandwidth on at least one of a plurality of paths within said broadband network; and

means for selecting at least one of said paths for switching an incoming call through two of said plurality of connection control nodes using said bandwidth data and said quality data.

58. (New) The telecommunications system of Claim 57, wherein each of said connection control nodes has a jitter buffer therein for buffering packets received through said broadband network, said quality data being based on measurements relate to said jitter buffer.

59. (New) The telecommunications system of Claim 57, further comprising:
means for performing a calculation of statistical information related to said bandwidth data on each of said paths, said calculation being performed continuously or periodically.

60. (New) The telecommunications system of Claim 57, further comprising:
means for allocating bandwidth on said at least one selected path for said incoming call; and
means for updating said bandwidth data for said at least one selected path based on said bandwidth allocated for said incoming call.

61. (New) a call control node within a hybrid telecommunication system including a plurality of connection control nodes, each connection control node having broadband switching fabric and a broadband network, said broadband network further including a plurality of paths, each of said plurality of paths establishing a communication link between certain two of said plurality of connection control nodes, said call control node comprising:

narrowband switching fabric;

switching intelligence for providing call control for said narrowband switching fabric and each of said plurality of connection control nodes;

a data structure containing bandwidth data identifying an amount of available bandwidth on at least one of a plurality of paths; and

means for selecting at least one of said paths using said bandwidth data for switching an incoming call through a broadband network interconnecting said plurality of connection control nodes over said broadband switching fabric.

62. (New) The call control node of Claim 61 comprises a Media Gateway Controller.

63. (New) The call control node of Claim 61, wherein said data structure further comprises statistical information related to said bandwidth data on each of said paths.

64. (New) The call control node of Claim 63, further comprising:
means for performing a calculation of said statistical information related to said bandwidth data on each of said paths, said calculation being performed continuously or periodically; and
means for storing said statistical information in said data structure.

65. (New) The call control node of Claim 61, further comprising:

means for allocating bandwidth on said at least one selected path for said incoming call; and

means for updating said bandwidth data within said data structure for said at least one selected path based on said bandwidth allocated for said incoming call.

65. (New) The call control node of Claim 61, wherein said data structure further includes quality data related to the quality of packet transmissions on at least one of said plurality of paths within said broadband network.

66. (New) The call control node of Claim 65, wherein each of said connection control nodes has a jitter buffer therein for buffering packets received through said broadband network, said quality data being based on measurements related to said jitter buffer.

67. (New) The call control node of Claim 66, wherein said means for selecting further comprises:

means for selecting an optimum route based on said quality data and said bandwidth data for each of said paths.